Marine Environmental Update

NEPSS

Marine Environmental Support Office

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EPA RE-ISSUES NPDES STORM WATER PERMITS RULE

The EPA withdrew the storm water phase II direct final rule published on April 7, 1995 (60 FR 17950) and promulgated a new final rule in its place (60 FR 17958). This action by the EPA instituted changes to the National Pollutant Discharge Elimination system (NPDES) storm water permit application regulations under the Clean Water Act (CWA) for phase II dischargers. Phase II dischargers generally include all point source discharges of storm water from commercial, retail, light industrial and institutional facilities and from municipal separate storm sewer systems serving populations of less than 100,000. This rule establishes a sequential application process in two tiers for all phase II storm water discharges. The first tier provides the NPDES permitting authority flexibility to require permits for those phase II dischargers that are determined to be contributing to a water quality impairment or are a significant contributor of pollutants to waters of the United States. "Permitting authority" refers to the EPA or States and Indian Tribes with approved NPDES programs. The EPA expects this group to be small because most of these types of dischargers have already been included under phase I of the storm water program.

• ALSO IN THIS ISSUE •

The second tier includes all other phase II dischargers. This larger group will be required to apply for permits by the end of six years, but only if the phase II regulatory program in place at that time requires permits. The EPA has stated that it is open to, and committed to, exploring a number of non-permit control strategies for the phase II program that will allow efficient and effective targeting of real environmental problems. As part of this commitment, the EPA has initiated a process to include stakeholders in the development of a supplemental phase II rule under the Federal Advisory Committee Act (FACA). This rule will be finalized by March 1, 1999 and will determine the nature and extent of requirements, if any, that will apply to the various types of phase II facilities prior to the end of the six-year application period defined by today's rule.

The direct final rule first published on April 7, 1995, in 60 FR 17950, and corrected on April 18, 1995, in 60 FR 19464 has been withdrawn, and this final rule became effective on August 7, 1995. In accordance with 40 CFR 23.2, the EPA explicitly provided that this rule be considered final for purposes of judicial review at 1 p.m. (Eastern time) on August 7, 1995.

--60 FR 151, August 7, 1995, pp. 40229-40235.

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NPDES PERMIT ENFORCEMENT IN QUESTION

Sanitary sewer National Pollutant Discharge Elimination System (NPDES) permit violations could be prosecuted by the Department of Justice even if the Environmental Protection Agency is barred from doing so by Congress, according to the EPA. An amendment to the EPA's Fiscal Year 1996 appropriations bill (HR 2099) contained language which prohibited the EPA from using any of the funds allocated by the bill for enforcement of Clean Water NPDES permit limitations or compliance schedules for controlling sewer overflows.

On July 28, 1995, the House of Representatives, voted to remove the amendment from the appropriations bill. However, on July 30, the amendment was revived when the House reversed the earlier vote. The bill would cut the EPA's budget from $7.2 billion for this year to $4.9 billion in 1996, would remove the enforcement of 14 provisions of existing laws from the EPA's jurisdiction, and includes the following measures:

- Elimination of a $1.8 billion program to assist states and communities to build new facilities for treating drinking water;
- Elimination of the Great Lakes and Gulf of Mexico initiatives;

- Reduction in funding for cleaning up sewage spills; and
- Reduction of the EPA's environmental law enforcement budget by one-half.

House Resolution 2099 was passed by the full House on July 31, 1995, and was delivered to the Senate on August 1, 1995, where it was referred to the Senate Committee on Appropriations for consideration.

--*Air & Water Pollution Control*, Vol. 8, No. 18, August 30, 1995, p. 1.
--*San Diego Union Tribune*, July 29, 1995, p. A-1.
--*San Diego Union Tribune*, August 1, 1995, p. A-1.

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LEGALLY OBSOLETE REGULATIONS DELETED BY EPA

About 250 rules on the control of air and water pollution and solid and hazardous wastes have been removed from the Code of Federal Regulations (CFR) because they are considered legally obsolete, according to the EPA final rules issued June 29. Agency officials said the deleted rules included only those considered "legally obsolete" and whose removal requires no public comment. The agency may offer some regulatory modifications that would require comment.

Water regulations deleted from the CFR included programs dealing with wastewater discharge permitting and pretreatment, effluent limitations, public waste supplies, and underground injection control. The maximum contaminant level goal and maximum contaminant level established under the drinking water program for nickel also were deleted. Other regulations that were deleted were:

- Regulations regarding the awarding of grants for cities for construction of waste-water treatment works, since most of the projects eligible of those grants have been completed and the grants program itself no longer exists.

- Language allowing the EPA to award grants to cities for reimbursement of state or local funds used for public sewage treatment works projects on which construction was initiated after June 30, 1956, but before July 1, 1973.
- A measure allowing the EPA to grant compliance extensions to any industrial facility subject to a National Pollutant Discharge Elimination System (NPDES) permit if the facility installed innovative technology. Such extensions were not allowed after May 31, 1991.

The EPA also deleted language repeated in several different effluent guidelines regarding variances from certain limitations. Language in the CFR requiring the inventory and assessment of a certain class of underground injection wells was deleted, since assessment already has been completed.

Additional information on the water rules may be obtained from Cynthia Puskar, EPA Policy and Resources Management Office; telephone (202) 260-8532.

--*Environment Reporter*, Vol. 26, No. 10, July 7, 1995, pp. 518-520.

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SEAPLANE BASE PROPOSED FOR NPL DELETION

Soil excavation activities at the NAS Whidbey Island Seaplane Base site on Whidbey Island, WA, have sufficiently reduced the threat to human health and the environment to warrant its removal from the National Priorities List (NPL). From the 1940s to the late 1970s, activities on the site generated wastes - some hazardous - that were disposed of at the point of generation and in a nearby landfill. The site was put on the NPL in 1990. Following the removal of 1,300 cubic yards of contaminated soil, the site no longer poses a threat to human health or the environment and future use is unrestricted, according to the EPA. More information on the proposed deletion is available from R. Matthew Wilkening, EPA Region X, at (206) 553-1284.

--*Environment Reporter*, Vol. 26, No. 13, July 28, 1995, p. 641.

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WATER QUALITY MEETINGS SET

A multi-regional meeting on water quality standards and criteria, sponsored by the EPA will be held September 18-20 at the Holiday Inn Riverwalk in San Antonio, TX. While this event will precede the distribution of this newsletter, two additional multi-regional meetings are planned for November 13-17 in Denver, CO, and April 28-May 3, 1996, in Burlington, VT. According to the EPA, the workshop will provide participants with information and technical assistance on the development of and compliance with water quality standards and criteria.

The meeting will consist of discussions and case studies on water quality criteria and standards. A workshop on trace metals and techniques necessary to determine the

existence of trace metals at ambient water quality criteria levels will be held on the meeting's final day. Participants from states, Indian tribes, federal agencies, environmental groups, industry groups, and municipalities are invited to attend.

For further information, contact Liz Hiett, Tetra Tech Inc.; (703) 385-6000.

--*Air & Water Pollution Control*, Vol. 8, No. 18, August 30, 1995, p. 6.

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PRINCIPLES FOR ENVIRONMENTAL CLEANUP AT FEDERAL FACILITIES

The Federal Facilities Environmental Restoration Dialogue Committee recently released a set of "Principles for Environmental Cleanup at Federal Facilities." The Committee is a federally chartered advisory committee. The Committee includes participants from: the U.S. Departments of Energy, Defense, Agriculture, and the Interior; the National Oceanic and Atmospheric Administration and the Agency for Toxic Substances and Disease Registry; as well as members from state, tribal and local governments; numerous other national, regional and locally based environmental, community and environmental justice and labor organizations. The Committee released 14 principles representing agreement on recommendations and findings regarding federal facility environmental cleanups.

The 14 principles address: the nature of the federal government's obligations; sustained commitment to environmental cleanup; environmental justice; consistency of treatment between federal facilities and private sites; cleanup contracting; fiscal management; interdependent decision-making roles and responsibilities; the role of negotiated cleanup agreements; consideration of human health risk and other factors in federal facility environmental cleanup decision-making; the importance of pollution prevention and pollution control activities; the role of future land use determinations in making cleanup decisions; the role of studies in the cleanup process; the need for a systematic approach to decision-making and priority setting; and stakeholder involvement. For a copy of the report contact the RCRA/Superfund Hotline at 1-800-424-9346 or 703-412-9810.

--EPA Press Release: Friday, September 8, 1995.

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SCAPS PRESENTS MAJOR CERTIFICATION/DEMONSTRATION

On May 16, 1995, the Site Characterization and Analysis Penetrometer System (SCAPS) performed a demonstration for the U.S. Environmental Protection Agency at the Naval Construction Battalion Center, Port Hueneme. Approximately 70 policy makers attended the event representing the Department of Defense (DoD), Department of Energy (DoE), U.S. Environmental Protection Agency, California Environmental Protection Agency, Western Governors' Association, Loral Corporation, and others. Several environmental trade journals also covered the event.

The SCAPS system is a mobile platform for deploying environmental sensors to locate and characterize hydrocarbon contamination in the soil. The demonstration was a product of the partnership between the DoD, the DoE, the EPA, the consortium for Site Characterization Technology, the California EPA, and the Western Governors Association.

Presentation to this significant and diverse group featured a welcoming ceremony with remarks from the project sponsor, Naval Facilities Engineering Service Center, followed by organizational, programmatic demonstration and comparison of the new SCAPS technology with the traditional soil-boring and sampling approach for contaminated soil analysis. The presentation site was an out-of-service 450,000 gallon fuel storage tank chosen for demonstration because it is part of the national test site designated for fuel hydrocarbon testing.

SCAPS is supported as a tri-service (Army, Navy, Air Force) program. The current sensor was developed and implemented by NRaD. It uses laser induced fluorescence sensors for faster, cheaper, and better characterization of petroleum and hazardous waste by forcing a small diameter probe into the earth using cone penetrometer technology. The SCAPS probe transmits laser ultraviolet light energy into the soil and measures fluorescence response from specific fuel products. SCAPS provides data to crews in real-time and provides contamination information and geotechnical properties for site soil. The goal of SCAPS is to reduce site characterization costs associated with conventional drilling, sampling, and analytical methods by reducing the number of borings and monitoring wells needed. In 1994, the technology was used to expedite remediation and closure of a diesel underground storage tank at North Island Naval Air Station. Over $20 million was saved as well as time and reliance on traditional analytical procedures in this effort.

--NRaD *OutLook*, July 28, 1995, pp. 1

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PRESIDENT SIGNS BILL RESCINDING $1.3 BILLION IN EPA FUNDING

President Clinton signed a bill on July 27, 1995, to rescind $16.4 billion in previously-approved spending for the remainder of Fiscal Year 1995 (FY95), including $1.3 billion that had been earmarked for EPA programs. After more than seven weeks of wrestling with congressional Republicans over the bill (HR 1944), Clinton signed a revised version of the measure that he vetoed June 7. The new version was approved on July 21, 1995, by the Senate on a 90-7 vote. The biggest single cut in EPA funding was $1.1 billion that had been allocated for state revolving funds (SRF) to provide low-interest loans for water systems to make capital improvements to help them comply with the Safe Drinking Water Act. The rescissions bill also cut $100 million from the FY95 superfund allocation, and about $98 million for other EPA activities.

The rescissions bill did not affect any other elements of the EPA's drinking water program or its clean water program. The Senate is still considering the EPA's FY96 requests for all programs. The rescission is not expected to have a major impact on the EPA's hazardous waste cleanup program this year. The EPA's FY96 superfund request of $1.5 billion was trimmed by $500 million in the budget bill passed on July 31, 1995 by the House and Senate. The Senate is continuing debate on the FY96 budget. The bill sets a moratorium on new superfund site additions to the National Priorities List for the balance of FY95 unless requested by a governor or unless the Comprehensive Environmental Response, Compensation, and Liability Act is reauthorized.

--*Environment Reporter*, Vol. 26, No. 14, August 4, 1995, p. 659.

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ENVIRONMENTAL SCIENTIST WINS NRAD ACHIEVEMENT AWARD

The NRaD Exemplary Achievement Award recognizes sustained performance and specific achievements meriting command recognition because of the benefit to the Navy and NRaD. Dr. Sabine Apitz received this award due to her consistently managed soil and sediment environmental assessment and remediation projects in a highly effective manner. She addresses research needs for Navy harbor sediment issues and represents the Navy on the National Research Council's Contaminated Marine Sediments Committee.

--NRaD *OutLook*, July 14, 1995, p. 1.

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FLUORINATED SHIP-HULL COATINGS FOR NON-POLLUTING FOULING CONTROL

Ship hull protection from marine fouling organisms is essential for efficient fleet operation and energy conservation. To address this important issue, flexible, low-surface-energy polymer candidates are being developed with non-toxic, zero-discharge, easy-fouling-release properties. These protective coatings have a significant potential for reducing costs associated with dry-dock and in-water hull cleaning operations and less degradation of operational performance due to fouling drag between scheduled hull cleanings. Presently, the standard Navy antifouling (AF) coatings use copper-containing compounds as toxicants. These are highly regulated and are a potential pollution source. Because low surface-free-energy coatings work by a physical property of the solid surface rather than the toxicity of a released antifouling agent, nothing would be released into the environment and there would be no risk of environmental pollution.

The primary scientific objectives of this research are to design, optimize, and characterize coatings and their surfaces which exhibit fouling release properties. The overall approach includes correlating surface characterization data with coating performance data to develop parameters which provide prediction capabilities for designing an optimal fouling release surface. Investigations of the polymer-bioadhesive interface are also being performed to develop a fundamental understanding of the fouling process on different surfaces.

Polymer coatings are optimized through an iterative optimization process. New formulations are sampled throughout their syntheses and analyzed using gas chromatography. All polymer products, after isolation and purification, are then physically and chemically characterized. Subsequently, samples of the polymers are spray-coated onto suitable substrates for performance testing, including exposure to fouling organisms, adhesion testing, and a wide variety of surface analyses. All analytical data are correlated with coating performance data and used for new polymer design, formulation, and coating evaluation. The optimization process allows for determination of criteria for polymer coatings with optimal and predictable easy-fouling-release properties.

Technical coating issues are addressed through the use of state-of-the-science analytical techniques and instrumentation including nuclear magnetic resonance spectroscopy for polymer structural analysis (functional group domains, random vs. blocky structure, etc.) and surface orientation of pendant fluoroalkyl chains in the coatings; surface infrared reflectance and micro-infrared spectroscopies to determine molecular orientation and functional group domain structure of the polymer surface; atomic force and scanning electron microscopic analyses for surface morphological characterization and domain size/structure analysis; contact angle analysis for surface-free-energy confirmation and

for studying effects of exposure conditions on surface properties; and measurements of the force of adhesion between polymer surfaces and model bioadhesives for screening potentially useful polymer surfaces. Adaptations of surface infrared reflection spectroscopy are being used to investigate the polymer-bioadhesive interaction during organism attachment and detachment (cleaning) and to determine the stability of polymers in seawater.

For further information contact: Mike Putnam at (619) 553-2794, FAX (619) 553-6305, e-mail: d361@nosc.mil or Dr. Robert George at (619) 553-2773, FAX (619) 553-6305, e-mail: d362@nosc.mil.

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EPA, CALIFORNIA ISSUE DRAFT PERMIT TO GRANT SAN DIEGO TREATMENT EXEMPTION

A draft permit that would exempt San Diego from secondary sewage treatment requirements under the Clean Water Act was issued August 14 by the EPA and the California Regional Water Quality Control Board. The draft five-year permit includes waste-water discharge limits for oil and grease, settleable solids, biochemical oxygen demand, turbidity, and other pollutants. The proposal also would establish a monitoring program to assess the impact waste-water discharges would have on the marine environment, demonstrate compliance with applicable water quality standards, and measure toxic substances in the effluent. A significant provision in the proposed permit is a requirement that San Diego remove 80 percent of suspended solids before discharging its effluent. The annual discharge limit on suspended solids would be 13,600 metric tons. The draft permit also would require 58 percent removal of biochemical oxygen demand.

Draft permit copies are available for review at EPA, Region IX, Water Management Division, Permit Section (W-5-1), 75 Hawthorne St., San Francisco, Calif. 94105; (415) 744-1921. Or the California Regional Water Quality Control Board, San Diego Region, 9771 Clairemont Mesa Blvd., suite B, San Diego, Calif. 92124; telephone (619) 467-2981.

--*Environment Reporter*, Vol. 26, No.16, August 18, 1995, pp. 778.

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LOW LEVEL RADIOACTIVE WASTE DISCOVERED IN DUMP AT NAS NORTH ISLAND

The Navy and the State of California's Department of Toxic Substances Control (DTSC) are investigating an old waste site at Naval Air Station North Island which was revealed to contain mildly radioactive radium 226. The radium originated from luminous aircraft instrument dials discarded at the site between 1943 and 1967. The radioactivity was discovered on July 27, 1995 by a state regulator during a survey of Navy waste sites. In response to a call for an emergency removal action by the DTSC, the Navy excavated and removed 1,000 cubic yards of slag material for permanent disposal. All of tests conducted to date by both the Navy and the State of California have shown no migration of any radioactive material nor any hazard to human health or the environment.

--*San Diego Union Tribune*, September 8, 1995, p. B-5.

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STATE REGULATORY HIGHLIGHTS

California Water Board Adopts Plan

A strategic plan that tries to address current water issues and anticipate future problems, while also allowing the board to operate within tighter fiscal limits, was adopted June 22 by the State Water Resources Control Board. The plan is viewed as general guidance to steer the board through a future that is expected to include increasing demands on the state's water resources at the same time that sources of "reliable" funding are becoming more scarce. The board's mission in the plan is "to serve and enhance the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations."

Major challenges the board foresees are nonpoint source pollution, groundwater contamination, water supply, and increasing water demands. Specific strategies the board said it plans to pursue include integrated watershed management, streamlining laws and regulations governing water transfers, promoting water recycling, and encouraging local agencies to incorporate water-quality considerations into groundwater management plans.

--*California Environmental Compliance Monitor*, Vol. 5, No. 17, July 10, 1995, pp. 244-245.

California Sets Three-Year Statute of Limitation on Pollution Suits

California Governor Pete Wilson signed into law on July 31, 1995, legislation (AB1174) raising from one to three years a statute of limitation on civil suits for diverting, obstructing, or polluting waterways. The limitation begins to run when an agency discovers the facts offering grounds to file suit, according to Will Richmond, Santa Clara County district attorney, who said most prosecutors supported the bill because under the old law they were forced to "file now and talk later." That has resulted in some "precipitous" charges being filed without benefit of getting full information from the accused or performing follow-up investigations.

--*Environment Reporter*, Vol. 26, No. 17, August 25, 1995, p. 814.

Florida NPDES Program Approved

On May 1, 1995, the Environmental Protection Agency approved the State of Florida's application to administer the National Pollutant Discharge Elimination System (NPDES) program for regulating point source discharges into the state's surface waters (60 FR 25718). The approval gives the state Department of Environmental Protection authority to administer a phased NPDES program that currently covers permitting for domestic discharges, industrial dischargers, including those that also have storm water discharges, and the pre-treatment program for publicly owned treatment works. Permitting programs for individual storm water-only discharges, storm water discharges from municipal separate storm sewer systems, and federal facility discharges are to be phased by 2000.

--*Air & Water Pollution Control*, Vol. 8, No. 12, June 7, 1995, p. 8.

Alabama Water Rules Changed

Changes to environmental regulations and actions on administrative appeals highlighted the July 12 meeting of the Alabama Environmental Management Commission. Changes to water control regulations (AAC 335-7-11 and AAC 335-7-12) include initiation of a permitting program for the use and disposal of sewage sludge generated by municipal, semi-public, and semi-private wastewater treatment systems. New sewage sludge standards require owners/operators of sewage sludge systems to be issued a permit from the Alabama Department of Environmental Management (ADEM) to use or dispose of certain classes of sewage sludge. These permits require: sampling and analysis of the sludge prior to use or disposal; limiting of specified pollutants in the sludge and monitoring to insure compliance with these limits; and record keeping and reporting.

Other changes include:

- Requiring existing sources subject to federal stormwater discharge restrictions to secure an individual or general permit and that new sources subject to these standards to secure a permit prior to discharge (AAC 335-6-5);
- Allowing ADEM's director to make NPDES permits effective for a longer period than the current five-year maximum in anticipation of the EPA's extending the five-year renewal requirement to facilitate the transition to a basinwide permitting strategy (AAC 335-6-6);
- Deleting the provision that prohibits a single facility from holding both a NPDES and general stormwater permit (AAC 335-6-6);
- Allowing ADEM to require that special measuring equipment be installed at surface water treatment plants if needed to demonstrate compliance with specified standards, particularly those for the microbiological contaminants giardia and cryptosporidium (AAC 335-6-5).

For more information contact ADEM's Clark Bruner at (334) 271-7709.

--*Air and Water Pollution Control*, Vol. 8, No. 15, July 19, 1995, p. 8.

ABOUT THE MARINE ENVIRONMENTAL UPDATE

This newsletter is produced by the Marine Environmental Support Office (MESO) and is dedicated specifically to inform the Navy about marine environmental issues that may influence how the Navy conducts its operations. MESO is located at the Naval Command, Control and Ocean Surveillance Center's Research, Development, Test and Evaluation Division (NRaD) in San Diego, California. The mission of MESO is to provide Navy-wide technical and scientific support on marine environmental science, protection and compliance issues. This support covers a broad spectrum of activities, including routine requests for data and information, technical review and consultation, laboratory and field studies, comprehensive environmental assessments, and technology transfer. Significant developments in marine law, policy, and scientific advancements will be included in the newsletter, along with references and points of contact for further information. The Marine Environmental Support Office may be reached at:

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